



PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

EX PARTE Hickman

Application for Patent

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Serial No. 10/751,334

Examiner Richman Art Unit 3764

FOR: Exercise System and Method

With Virtual Personal Trainer Forewarning (as amended)

APPEAL BRIEF

CERTIFICATE OF MAILING

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Paul L. Hickman

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REAL PARTY IN INTEREST

The real party in interest is CyberGym, Inc., by assignment.

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II. RELATED APPEALS AND INTERFERENCES

The following appeal to the USPTO Board of Patent Appeals and Interferences ("the Board") may be related:

Atty. Dock. No.	USSN	Filed	Status
ENVSP001B	09/690,701	10/16/2000	No decision by the Board. Appeal Brief filed on 9/2/03, followed by a Notice of Allowance by the Examiner.

III. STATUS OF THE CLAIMS

All pending claims (1-3, 5, 8-9, 15-18 and 20-28) stand rejected by the Examiner. Claims 4, 6, 7, 10-14 and 19 have been canceled without prejudice by Appellant. Appellant notes the apparent erroneous rejection of canceled claim 19 and of the apparent erroneous rejection of claim 16 under §102(b) (without remarks) in addition to §103(a) (with remarks). Appellant therefore does not respond to the rejection of canceled claim 19 nor the rejection of claim 16 under §102(b) in this Appeal Brief.

IV. STATUS OF THE AMENDMENTS

There has been no amendment after the final rejection.

V. SUMMARY OF CLAIMED SUBJECT MATTER

In an embodiment, set forth by way of example and not limitation, an exercise system (*e.g.* Fig. 1 item 10) includes an exercise apparatus (*e.g.* Fig. 1 item 12) having a level of effort that is adjustable with an actuator (*e.g.* Fig. 1 item 52). The exercise apparatus further includes a scripted virtual personal training experience for a user of the exercise apparatus. The exercise apparatus further includes a loudspeaker (*e.g.* Fig. 1 item 58) to provide a vocal warning of an impending change in the level of effort prior to a change in the level of effort by an automated control of the actuator.

In an alternate embodiment, the exercise apparatus is one of a plurality of exercise apparatus, each of which is in at least part-time communication with a computer. In another alternate embodiment, the scripted virtual personal training experience includes vocal and actuator control data stored in a digital storage medium (*e.g.* Fig. 2 items 84, 86, 88, 89) associated with the exercise apparatus. In another alternate embodiment, the automated control of the actuator is in accordance with the actuator control data. In another alternate embodiment, the exercise apparatus is selected from the group consisting essentially of a bicycle, a rowing machine, a step machine, a treadmill, and a resistance trainer. In another alternate embodiment, the system further includes audio data stored in the digital storage medium (*e.g.* Fig. 2 items 88, 89).

In an embodiment, set forth by way of example and not limitation, a method for creating an exercise experience includes providing a training experience (*e.g.* Fig. 5) for a user of an exercise apparatus including a vocal forewarning of an impending change (*e.g.* Fig. 5 item 142) in a level of effort required of the user, and automatically changing the level of effort after the vocal forewarning.

In an alternate embodiment, the method further includes establishing a communication linkage including an Internet link (*e.g.* Fig. 10 item 216) between the exercise apparatus and a remote system. In another alternate embodiment, the method further includes automatically changing the level of effort includes a changing of an operating parameter of the exercise apparatus in a manner consistent with the vocal warning.

In an embodiment, set forth by way of example and not limitation, an exercise apparatus includes a frame (page 8, line 8), a body-engaging member (*e.g.* Fig. 1 item 38), an actuator (*e.g.* Fig. 1 item 52) coupled between the frame and the body-engaging member, an audio display (*e.g.* Fig. 1 item 58) providing an audible alert of an impending change in a scripted exercise session; and an actuator controller (*e.g.* Fig. 1 item 24) coupled to the actuator for implementing the change subsequent to the audible alert.

In an alternate embodiment, an exercise apparatus further includes a visual display (*e.g.* Fig. 1 item 56 and Fig. 10 item 238) displaying images related to the scripted exercise session. In another alternate embodiment, the actuator controller is synchronized with at least one of the visual display and the audio display. In another alternate embodiment, control signals for at least one of the visual display, the audio display, and the actuator are at least temporarily digitally stored. In another alternate embodiment, the exercise apparatus is selected from the group consisting essentially of a bicycle, a rowing machine, a step machine, a treadmill, and a resistance trainer. In another alternate embodiment, control signals for at least one of the audio display and the actuator are at least temporarily digitally stored. In another alternate embodiment, control signals are stored in a volatile digital storage medium. In another alternate embodiment, control signals are stored in a non-volatile digital storage medium. In another alternate embodiment, the non-volatile digital storage medium is a rotary disk digital storage medium (*e.g.* Fig. 2 item 89). In another alternate embodiment, the audio display includes a loudspeaker.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- A. *ISSUE A: Are the rejections of claims 1- 3, 5, 8-9, 15, 17-18 and 20-28 under 35 U.S.C. §102(b) as being anticipated by Dyer in error?*
- B. *ISSUE B: Is the rejection of claim 16 under 35 U.S.C. §103(a) as being unpatentable over Dyer in view of Macri in error?*

VII. GROUPING OF THE CLAIMS

A. Issue A (claims 1- 3, 5, 8-9, 15, 17-18 and 20-28)

1. Group A1- claims 1-3, 5, 8, 18 and 20-28 stand or fall together
2. Group A2 – claim 9 stands or falls on its own
3. Group A3 – claims 15 and 17 stand or fall together

B. Issue B: Claim 16 stands or falls on its own

VIII. THE CITED ART

Dyer describes a system and method for providing an exercise program at a desired pace throughout each repetition and which applies resistance against a user's efforts based upon user performance history and user demographics. A central controller stores user demographics and performance information, and provides this information as well as program criteria and evaluations to any of a plurality of exercise stations. The exercise stations each include a magnetic brake for producing the desired resistance levels. A central processor unit (CPU) controls the exercise program at each station. The initial brake resistance is established based upon user demographic information and initial user performance of an exercise. The brake resistance is represented by lights in an LED stack simulating weights which move up and down along a run in conformity with position of a movement arm which the user moves. A pacer light moving adjacent the LED weight stack guides the user at a desired pace throughout each repetition. User performance including rate and limb extension is monitored and resistance is changed during the exercise period as performance corresponds to selected criteria. The user's performance is evaluated based on performance history and demographically-based criteria to provide coaching comments to the user and to propose changes to the exercise program. Selected educational and instructional material relevant to the particular user may also be provided. In addition, by monitoring user parameters such as weight and percent body fat, and in view of user demographic and performance information, diet control information may also be provided.

Macri discloses a method of instruction and simulated training and competitive play or entertainment in an activity that couples cognitive and motor functions, in particular, the playing of the game of hockey. The invention includes a computer used to view and to control images of hockey players on a computer screen. An image of a hockey player controlled by the user is juxtaposed to or superimposed upon the image of an instructive, ideal or master hockey player(s). The user manipulates the controlled image of a hockey player in an effort to approximate the movements of the instructive or ideal player via an input device such as a keyboard, joystick, or virtual reality device. The invention also includes means by which the

user's performance in approximating the instructive or ideal player may be measured. The user can also control an image of a hockey player on the computer screen so that the image engages in performing offensive and defensive drills in opposition to an ideal or another opponent or team.

IX. ARGUMENTS

A. *ISSUE A: the rejections of claims 1- 3, 5, 8-9, 15, 17-18 and 20-28 under 35 U.S.C. §102(b) as being anticipated by Dyer are in error and should be reversed*

1. Group A1- claims 1-3, 5, 8, 18, 20-28

Independent claim 1 reads as follows:

**1. An exercise system comprising:
an exercise apparatus having a level of effort that is adjustable with an actuator, said exercise apparatus providing a scripted virtual personal training experience for a user of said exercise apparatus, said exercise apparatus including a loudspeaker to provide a vocal warning of an impending change in said level of effort prior to a change in said level of effort by an automated control of said actuator. (emphasis added)**

Independent claim 18 reads as follows:

**18. An exercise apparatus comprising:
a frame;
a body-engaging member;
an actuator coupled between said frame and said body-engaging member;
an audio display providing an audible alert of an impending change in a scripted exercise session; and
an actuator controller coupled to said actuator for implementing said change subsequent to said audible alert. (emphasis added)**

While different in scope and focus, both Appellant's claims 1 and 18 are directed to two exemplary embodiments wherein vocal or other audible warning is made of an impending change in a scripted session. By way of non-limiting example, if a change in the scripted exercise experience is about to occur, an audible alert can warn of the change. This helps a user

prepare, both mentally and physically, for the anticipated change in the scripted exercise experience. The system and method then automatically changes the scripted exercise experience that was warned of by the virtual personal trainer or otherwise. See, for example, the following passage from Appellant's Specification:

The script preview would then, in a step 142, indicate something like “We are now approaching a hill. You will note an increased resistance to pedaling in a few seconds which will steadily increase until we reach the crest of the hill in about one and a half minutes.” Appellant's specification, page 15, lines 17-20.

Dyer does not describe or suggest a scripted virtual personal training experience for a user. At best, Dyer creates “settings”, which specify a simulated weight resistance and a number of repetitions. See, for example:

After recognizing and accepting a previous user, the exercise station CPU 160 examines all pertinent data, such as previous weight lifted, previous number of repetitions, time since the equipment was last used, demographic information of the user and what kind of results the user is looking for (for example, strength, bulk or definition). From this information, the CPU 160 updates the weight value to be used in the current session, and provides output to the user, telling him the weight and number of repetitions that he should do during this exercise period. If the user does not wish to use the suggested settings, he may override the computer by going into a manual mode and entering a desired weight level. Dyer, col. 16 lines 7-21.

The “settings” of Dyer cannot be equated to the “scripts” of Appellant. In particular, there is no timed change in the exercise experience with Dyer's settings of weight and number of repetitions. An essential characteristic of Appellant's scripts, however, is a timed change in the level of effort. That is, a script is a sequence of events. See, for example:

A script is simply a sequence of exercise or other health-related events that are performed in fixed or variable sequences. Appellant's Specification, page 12, lines 29-30. (emphasis added)

The temporal nature of the script is therefore clear: it includes a fixed or variable sequence of events. There is no sequence of events with Dyer; the single event (a certain number of

repetitions at a certain weight) is untimed. Dyer's settings are clearly not scripts. Since Dyer is missing this limitation of Appellant's claim, his rejection under 35 U.S.C. 102(b) clearly in error.

Even if, *arguendo*, Dyer's "settings" comprised a "script", there is no teaching that there would be a vocal warning of an impending change in level of effort. The Examiner relies on the following passage as supporting this limitation:

If it is determined in block 671 that a sensor has not detected passage of a hole within the past 3 seconds, the CPU will move to block 673 and produce signals which modify the resistance of the brake 64 in a manner which reduces the amount of weight simulated by that brake. The amount of weight reduction is selected based upon desired system operation and upon the goals of the exercise program. In one preferred embodiment, the weight would be reduced by 12 1/2%, or 1/8th of the total amount. Use of this value is particularly convenient when dealing in a hexadecimal number framework of a computer system.

This weight reduction is accomplished based on the assumption that since no passage of holes was detected by the sensors within the designated time period, the amount of weight which was previously selected may be too great to permit the user to move the equipment at the required speed. This problem is possibly overcome by reducing the weight as is accomplished in block 673. Dyer, col. 33, lines 37-54

There is no mention in this passage of a vocal warning of the impending change in level of effort. The apparatus simply determines that the user apparently cannot move the equipment at the current weight setting, and lowers the weight setting abruptly and without warning. Since the determination that the weight level is too high is determined by detecting a lack of movement of the equipment, it is not in response to a timed "script." Instead, it is sensed by sensors detecting the lack of passage of holes in the equipment.

Furthermore, the apparatus of Dyer is inoperative to provide a warning prior to changing the weight setting. The only disclosure of vocal encouragement or feedback is caused by interrupts created by the passage of holes.

After initiating the exercise session, the CPU moves to block 680 and outputs a reinforcing phrase when an interrupt flag

requesting output of the phrase has been set by an interrupt routine to be described hereafter with reference to FIG. 33. The phrase which is output is selected from a lookup table stored in ROM connected to CPU 160, with the selection being based upon performance of the user. For example, if the user is going too fast or too slow, this information will be designated by flags set during operation of the interrupt routine to be described with reference to FIG. 33. Also, if the user is not accomplishing full extension during the exercise cycle, this will be indicated by a flag set during the interrupt routine. The appropriate reinforcing messages are selected based upon the flags which are set.

From block 680, the CPU moves to block 671 where it checks the status of a software timer indicating whether one of the sensors 106 and 108 of FIG. 2 has detected passage of a hole within the past 3 seconds. Upon detection of a hole, the signal from the sensors produces an interrupt signal which initiates operation of the interrupt routine of FIG. 33. This signal also causes reinitialization of the timer which is tested in block 671. Accordingly, if an interrupt has occurred within the past 3 seconds, the CPU will determine in block 671 that a sensor detection has occurred within the designated time period and will return to block 680 to output an appropriate phrase if a flag has been set by the interrupt routine. Dyer, col. 33, lines 8-36. (emphasis added)

Therefore, with Dyer's system, a necessary condition precedent to the playback of even a "reinforcing message" is an interrupt event and flags set by the interrupt routine. The interrupt event is triggered by a "detection of a hole." However, the automatic change in weight pointed out by the Examiner is triggered by the absence of the detection of a hole. The absence of a hole does not trigger an interrupt in Dyer's system, only the presence of a hole. Therefore, Dyer's system is wholly inoperative to provide a vocal warning of an impending change in level of effort in any environment, scripted or not.

Appellant in the embodiments of both claims 1 and 18 includes the limitations that the exercise device is providing a scripted training experience and that a vocal/auditory warning of an impending change in level is provided prior to the automated change in level of effort by an actuator. Appellant's Fig. 5 and accompanying descriptions are exemplary of these particular claimed embodiments.

In Fig. 5, three types of vocal communications are described. A first type is encourage (134), a second type is caution (138) and a third type is providing a description of upcoming script events (142). Fig. 5 and the accompanying descriptions follow:

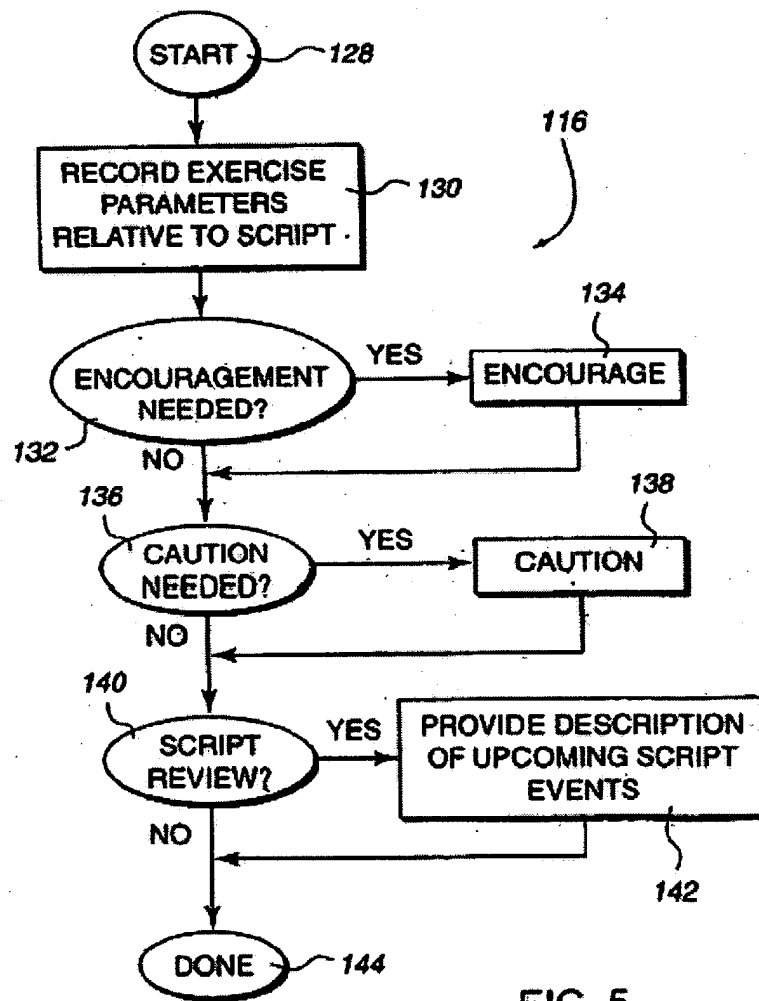


FIG. 5

In FIG. 5, the step 116 of FIG. 4 is explained in greater detail. Process 116 begins at 128 and, in a step 130, exercise parameters relative to the script are stored, preferably in mass storage 88. These parameters depend on the type of exercise being done, and the type of sensory input available to the system 12, but typically includes such things as time, RPM, resistance, machine state, etc. These exercise

parameters are used to control the implementation of the exercise script, and are stored for later analysis.

Next, in a step 132, it is determined whether encouragement is needed. An example of encouragement being needed is when the person is slowing down below the suggested repetition rate or speed in the script or, for example, has stopped exercising entirely. In such circumstances, encouragement is given in a step 134. Again, this encouragement can be auditory via speaker 58, or visual via display 56, a combination of the two, or in any other suitable fashion. Next, in a step 136, it is determined whether a caution is needed. If so, the caution is given in a step 138 either through auditory, visual, or other ways. Caution might be needed if the user is exercising faster than that suggested by the script or if a dangerous physical condition is detected, such as by the HRM 59. Next, in a step 140, it is determined if a script preview should be provided. If yes, a step 142 provides an auditory, visual or other type of preview of upcoming script events. For example, the system 12 could be taking a user on a imaginary bicycle ride through the country. The script preview would then, in a step 142, indicate something like "We are now approaching a hill. You will note an increased resistance to pedaling in a few seconds which will steadily increase until we reach the crest of the hill in about one and a half minutes." These steps 134, 138, and 142 are further examples of the local system 12 serving as a "virtual personal trainer." The process 116 is completed at step 144. Appellant's Specification, page 14, line 33 to page 15, line 22 (emphasis added).

The Examiner has not made a *prima facie* case of anticipation with this rejection. It is well established that "[a]nticipation requires the disclosure in a single prior art reference of each element of the claim under consideration." *W.L. Gore & Assocs. v. Garlock*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983). Clearly, the Examiner has not met that burden with respect to either of claims 1 or 18. Appellants respectfully request that the rejections of the claims of Group A1 be withdrawn.

2. Group A2 – claim 9

Claim 9 is reproduced below:

9. An exercise system as recited in claim 3 further comprising audio data stored in said digital storage medium.

Claim 9 is dependent upon claim 3 and is therefore patentable over Dyer for at least the same reasons as set forth above for Group A1. In addition, Dyer does not disclose or suggest storing audio data in a digital storage medium. That is, Dyer does not suggest the digital storage of audio.

Dyer, in fact, only teaches two methods for creating an audio output. The first is speech synthesis:

Speech output 164 includes a speech generator 200 which responds to signals received from the CPU 160 to generate selected voice data. Speech generator 200 may comprise one of many commercially available speech generators such as, for example, the phonetic speech generator part number 263 made by Solid State Scientific, Inc. Dyer, col. 12, lines 41-47.

The second method taught by Dyer is simple, analog audio input:

A stereo input 212 is also connected to the audio switch matrix 202 to receive music or other information from external sources and to play this over the speakers to a user. In operation, a stereo option may be selected by the user, and the stereo program is interrupted by the audio/switch matrix upon receipt of appropriate information from the CPU 160 through the speech generator 200. Dyer, col. 12, line 65 col. 13, line 4.

Therefore, Dyer does not teach the storage of audio data in a digital storage medium. It is clear that there are only two types of audio available in Dyer's system: speech synthesis and an analog stereo input. In fact, as noted from the passage above, the stereo program is interrupted by the speech generator, making it clear that there are no other audio sources available. This limitation of claim 9 is simply missing from the Dyer disclosure, and the rejection of claim 9 should be withdrawn for this reason as well.

3. Group A3 – claims 15 and 17

Claim 15 reads as follows:

15. A method for creating an exercise experience comprising:

providing a training experience for a user of an exercise apparatus including a vocal forewarning of an impending change in a level of effort required of said user, and automatically changing said level of effort after said vocal forewarning. (emphasis added)

As demonstrated above, Dyer provides no teaching that there would be a vocal warning of an impending change in level of effort. The Examiner relies on the following passage as supporting this limitation:

If it is determined in block 671 that a sensor has not detected passage of a hole within the past 3 seconds, the CPU will move to block 673 and produce signals which modify the resistance of the brake 64 in a manner which reduces the amount of weight simulated by that brake. The amount of weight reduction is selected based upon desired system operation and upon the goals of the exercise program. In one preferred embodiment, the weight would be reduced by 12 1/2%, or 1/8th of the total amount. Use of this value is particularly convenient when dealing in a hexadecimal number framework of a computer system.

This weight reduction is accomplished based on the assumption that since no passage of holes was detected by the sensors within the designated time period, the amount of weight which was previously selected may be too great to permit the user to move the equipment at the required speed. This problem is possibly overcome by reducing the weight as is accomplished in block 673. Dyer, col. 33, lines 37-54

There is no mention in this passage of a vocal warning of the impending change in level of effort. The apparatus simply determines that the user apparently cannot move the equipment at the current weight setting, and lowers the weight setting abruptly and without warning after sensors detect the lack of passage of holes (i.e. movement) in the equipment.

Furthermore, as noted above, the apparatus of Dyer cannot provide a warning prior to changing the weight setting. The only disclosure of vocal encouragement or feedback is caused by interrupts caused by the passage of holes.

After initiating the exercise session, the CPU moves to block 680 and outputs a reinforcing phrase when an interrupt flag requesting output of the phrase has been set by an interrupt routine

to be described hereafter with reference to FIG. 33. The phrase which is output is selected from a lookup table stored in ROM connected to CPU 160, with the selection being based upon performance of the user. For example, if the user is going too fast or too slow, this information will be designated by flags set during operation of the interrupt routine to be described with reference to FIG. 33. Also, if the user is not accomplishing full extension during the exercise cycle, this will be indicated by a flag set during the interrupt routine. The appropriate reinforcing messages are selected based upon the flags which are set.

From block 680, the CPU moves to block 671 where it checks the status of a software timer indicating whether one of the sensors 106 and 108 of FIG. 2 has detected passage of a hole within the past 3 seconds. Upon detection of a hole, the signal from the sensors produces an interrupt signal which initiates operation of the interrupt routine of FIG. 33. This signal also causes reinitialization of the timer which is tested in block 671. Accordingly, if an interrupt has occurred within the past 3 seconds, the CPU will determine in block 671 that a sensor detection has occurred within the designated time period and will return to block 680 to output an appropriate phrase if a flag has been set by the interrupt routine. Dyer, col. 33, lines 8-36.

Therefore, with Dyer's system, a necessary condition precedent to the playback of even a "reinforcing message" is an interrupt event and flags set by the interrupt routine. The interrupt event is triggered by a "detection of a hole." However, the automatic change in weight pointed out by the Examiner is triggered by the absence of the detection of a hole. The absence of a hole (insufficient movement) does not trigger an interrupt in Dyer's system, only the presence of a hole (sufficient movement). Therefore, Dyer's system is incapable of providing a vocal warning of an impending change in level of effort.

Appellant in the embodiment of claim 15 includes the limitation that the exercise device provides a vocal forewarning of an impending change in a level of effort required. Dyer does not teach this limitation and is not capable of performing this limitation. The rejections of claim 15 its dependent claim 17 are therefore clearly in error and should be withdrawn.

B. *ISSUE B: The rejection of claim 16 under 35 U.S.C. §103(a) as being unpatentable over Dyer in view of Macri is in error and should be reversed.*

Claim 16 is reproduced below:

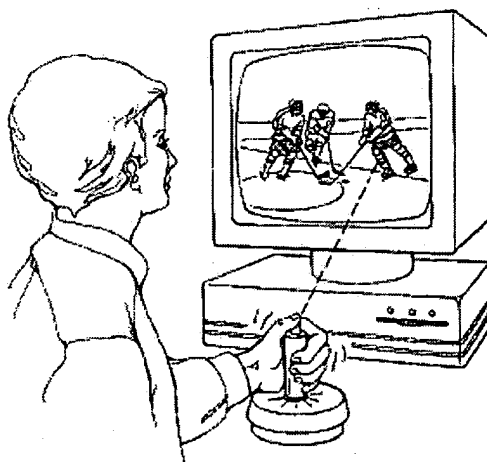
16. A method for creating an exercise experience as recited in claim 15 further comprising establishing a communication linkage including an Internet link between said exercise apparatus and a remote system. (emphasis added)

The Examiner has not made a *prima facie* case of obviousness in the rejection of claim 16. To establish a *prima facie* case, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references must teach or suggest all of the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Appellant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

First, the Examiner has not made a *prima facie* case of obviousness because not all of the limitations of claim 16 can be found in the combination of Dyer and Macri. Notably, Dyer omits any teaching of a vocal forewarning of an impending change in a level of effort required of a user, and Macri does not cure this omission.

Second, there is no suggestion or motivation to combine the references as suggested by the Examiner. The mere fact that prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. *In re Fritch*, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). Given the disparity of the problems addressed by the applied prior art references, and the differing solutions proposed by them, any attempt to combine them in the manner proposed by the Examiner could only come from Appellant's own disclosure and not from any teaching or motivation in the references themselves.

Macri does not teach an exercise apparatus at all. See, for example, the exemplary figure from Macri, below:



Macri is clearly and consistently directed to computer game-like simulations, such as ice hockey. The most physical the user gets is to manipulate a joystick, steering wheel or foot pedals to control the game-like simulation on a computer screen. The problem addressed by Macri, therefore, is to provide Internet connectivity with video games. The problem addressed by Dyer is to provide enhanced exercise equipment. There is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings.

Furthermore, the Examiner has not shown any a reasonable expectation of success that the combination would be operative. Dyer has an priority date of 1986, at a time when the Internet was in a primitive and non-commercial state. The Dyer equipment clearly is not Internet enabled. The problems of transmission delays and interruptions, packet losses, feedback loops, etc. over a packet network such as the Internet were therefore not even contemplated by Dyer. The Examiner has made no showing that a person of ordinary skill given the teachings of Dyer and Macri could successfully practice the combination.

Clearly, the Examiner has not met the burden of making a prima facie case of obviousness of claim 16 in view of Dyer and Macri. Appellants respectfully request that the rejection of claim 16 be reversed.

X. CONCLUSION

Appellants have demonstrated that the claims are neither anticipated nor unpatentable over the prior art of record. Appellants therefore respectfully request that the rejections of all pending claims be reversed, and that this application be returned to the Examiner for issuance.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'Paul L. Hickman', with a long horizontal flourish extending to the right.

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XI. CLAIMS APPENDIX

1. An exercise system comprising:

an exercise apparatus having a level of effort that is adjustable with an actuator, said exercise apparatus providing a scripted virtual personal training experience for a user of said exercise apparatus, said exercise apparatus including a loudspeaker to provide a vocal warning of an impending change in said level of effort prior to a change in said level of effort by an automated control of said actuator.

2. An exercise system as recited in claim 1 wherein said exercise apparatus is one of a plurality of exercise apparatus, each of which is in at least part-time communication with a computer.

3. An exercise system as recited in claim 1 wherein said scripted virtual personal training experience includes vocal and actuator control data stored in a digital storage medium associated with said exercise apparatus.

5. An exercise system as recited in claim 3 wherein said automated control of said actuator is in accordance with said actuator control data.

8. An exercise system as recited in claim 1 wherein said exercise apparatus is selected from the group consisting essentially of a bicycle, a rowing machine, a step machine, a treadmill, and a resistance trainer.

9. An exercise system as recited in claim 3 further comprising audio data stored in said digital storage medium.

15. A method for creating an exercise experience comprising:

providing a training experience for a user of an exercise apparatus including a vocal forewarning of an impending change in a level of effort required of said user, and automatically changing said level of effort after said vocal forewarning.

16. A method for creating an exercise experience as recited in claim 15 further comprising establishing a communication linkage including an Internet link between said exercise apparatus and a remote system.

17. A method for creating an exercise experience as recited in claim 15 wherein automatically changing said level of effort includes a changing of an operating parameter of said exercise apparatus in a manner consistent with said vocal warning.

18. An exercise apparatus comprising:

a frame;

a body-engaging member;

an actuator coupled between said frame and said body-engaging member;

an audio display providing an audible alert of an impending change in a scripted exercise session; and

an actuator controller coupled to said actuator for implementing said change subsequent to said audible alert.

20. An exercise apparatus as recited in claim 18 further comprising a visual display displaying images related to said scripted exercise session.

21. An exercise apparatus as recited in claim 20 wherein said actuator controller is synchronized with at least one of said visual display and said audio display.

22. An exercise apparatus as recited in claim 21 wherein control signals for at least one of said visual display, said audio display, and said actuator are at least temporarily digitally stored.

23. An exercise apparatus as recited in claim 18 wherein said exercise apparatus is selected from the group consisting essentially of a bicycle, a rowing machine, a step machine, a treadmill, and a resistance trainer.

24. An exercise apparatus as recited in claim 18 wherein control signals for at least one of said audio display and said actuator are at least temporarily digitally stored.

25. An exercise apparatus as recited in claim 24 wherein said control signals are stored in a volatile digital storage medium.

26. An exercise apparatus as recited in claim 24 wherein said control signals are stored in a non-volatile digital storage medium.

27. An exercise apparatus as recited in claim 26 wherein said non-volatile digital storage medium is a rotary disk digital storage medium.

28. An exercise apparatus as recited in claim 18 wherein said audio display includes a loudspeaker.

XII. EVIDENCE APPENDIX

NONE

XIII. RELATED PROCEEDINGS APPENDIX

NONE